THORACIC TRAUMA COMBINED WITH TRAUMAS OF UPPER AND LOWER EXTREMITIES

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Recently the treatment of all traumas is still an important and actual problem for surgeons, traumatologists, neurosurgeons and reanimators.

The combined thoracic trauma with traumas of the upper and lower extremities is one of the heaviest cases in traumatology. It reveals out numerous therapeutic and diagnostic problems. The combination of these traumas contributes to various damages of certain organs and systems which is a definite danger for the patient's life.

520 patients with complex traumas of the thorax, upper and lower extremities were treated in the Clinic of Orthopaedy and Traumatology, Higher Institute of Medicine, Varna city, for the recent 8 years. According to their origin the traumas were divided into the following groups:

1) Transport — 75%.
2) Professional — 10,5%.
3) House — 14,5%.

430 of the patients had a double combination of thoracic trauma with trauma of the upper or lower extremities. 22 of all cases show a triple combination — thorax, abdomen, extremities. 18 of the latter had thoracic combined with cranio-cerebral trauma and traumas of the extremities.

137 patients with a heavy respiratory insufficiency were admitted to the clinic. Certain number of them (24) had a respiratory insufficiency combined with a heavy shock and another 18 shew a coma with cerebral origin.

We had complex problems in treating of the combined traumas with numerous costal fractures and affected internal organs (lungs, etc.). 14 patients had a paradoxical mobility; 10 of them with 11 costal fractures.

The complex of our therapeutic behaviour was first of all directed towards the respiratory insufficiency and heavy haemorrhages. In these cases the fractures of upper and lower extremities ware treated by application a plaster-set immobilization or direct extension. Operative treatment was discussed additionally later considering the general status of the patients. 7 of them were subjected to a compressive osteosynthesis. The operative treatment of the extremities' fractures was considered by the conditions of the neighbouring tissues, fracture-character and location, etc. Still the combination between a heavy thoracic trauma with traumas of extremities required mainly a conservative treatment. 62% of our patients were treated conservatively whereas the rest 38% — operatively. The operative treatment in initial hours was indicated absolutely vitally: open fractures, intraarticular fracture, fracture-luxations, etc. The defered osteosynthesis was operatively applied 2—4 weeks later.

The normal lung ventilation was provided by following means:

a) analgetics, neurolysis with alcohol and novocain (blockades) — intercostal or paravertebral;

b) decompression of the pleural cavity — punction, drainage;

c) decompression of mediastinum — jugulotomia, tracheotomia;

d) direct extension (10 patients restored their thoracic anatomy and physiologic mobility) and costal osteosynthesis with costofixator (6 patients);

e) immediate endotracheal intubation and forced lung ventilation (14 patients with a heavy respiratory insufficiency);

f) mucolytica, bronchodilatators, bronchoaspirators, antibiotics, upper tracheotomia (16 patients);

g) correction of hypovolemia and support of biochemical balance of the patients.

Combinations with abdominal and pelvis traumas shew a manifestation of abdominal symptoms which lead our behaviour. All routine diagnostic approaches were simultaneously applied with the obligatory abdominocenthesis.

Lethal cases: 27 out of all 520 investigated patients.

The treatment of combined traumas (thoracic and extremities') requires the mutual collaboration of thoracic surgeons, orthopaedicians, traumatologists and reanimators.

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ТРАВМА ГРУДНОЙ КЛЕТКИ В СОЧЕТАНИИ С ТРАВМОЙ НИЖНИХ И ВЕРХНИХ КОНЕЧНОСТЕЙ

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РЕЗЮМЕ

Авторы сообщают о лечении 520 больных с комбинированной травмой грудной клетки и конечностей. Эта травма одна из самых тяжелых, что является причиной ее рассмотрения. Тяжесть травмы является результатом острой дыхательной недостаточности и состояния травматического шока, что вызывает ряд проблем при лечении этого вида комбинированной травмы. Приходилось лечение переломов отодвинуть на второй план и проводить консервативное лечение до операции. Оперативное лечение конечностей было преимущественно типа отложенного остеосинтеза.

Для лечения дыхательной недостаточности применялись: обезболивающая декомпрессия плевральной полости или средостения, прямая экстензия и остеосинтез ребер.

Четырнадцати больным с тяжелой дыхательной недостаточностью сделана эндотрахиальная интубация и искусственная легочная вентиляция.